

**UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF OHIO**

AERPIO PHARMACEUTICALS, INC., 9987 )  
Carver Road, Suite 420, Cincinnati, Ohio 45242 )

Plaintiff, )

v. )

DR. SUSAN E. QUAGGIN, 1722 N. Hudson )  
Ave., Chicago, IL 60614; )

MANNIN RESEARCH INC., 629 Eastern Ave., )  
Suite C300, Toronto, Ontario M4M 1E4; and )

NORTHWESTERN UNIVERSITY, 750 N. Lake )  
Shore Drive, Floor 7, Chicago, IL 60611 )

Defendants. )

CASE NO.:

COMPLAINT

JURY TRIAL DEMANDED

**COMPLAINT AND JURY DEMAND**

Plaintiff Aerpio Pharmaceuticals, Inc. (“Aerpio”), by its undersigned attorneys, for its Complaint against Defendants Dr. Susan E. Quaggin (“Quaggin”), Mannin Research Inc. (“Mannin”), and Northwestern University, Office for Sponsored Research (“University”), alleges as follows:

**NATURE OF THE ACTION**

1. Aerpio is a biopharmaceutical company focused on advancing first-in-class treatments for eye diseases. As a result of years of research and development into the Tie-2 receptor pathway in diseased blood vessels, Aerpio developed small molecules to treat certain eye diseases affecting millions of people across the globe.

2. AKB-9778 is Aerpio’s current lead product candidate and is currently in Phase 2b clinical trials, following an extensive pre-clinical and research program. AKB-9778 is a small

molecule that acts as an inhibitor of human protein tyrosine phosphatase (“HPTP $\beta$ ”), an enzyme that can disrupt the normal function of the Tie-2 receptor pathway. Vascular endothelial protein tyrosine phosphatase (“VE-PTP”) is the mouse homologue of HPTP $\beta$  and is therefore used as a research tool to find molecules that will inhibit HPTP $\beta$ , or in other words, molecules that will work in humans. For this reason, the terms are often used interchangeably. Through this mechanism of inhibiting VE-PTP/HPTP $\beta$ , treatment with AKB-9778 results in the restoration of normal anatomy of diseased blood vessels at the cellular level by restoring the normal function of the Tie-2 receptor. Aerpio is currently developing AKB-9778 for the treatment of diseases of the eye, including glaucoma and diabetic retinopathy.

3. Aerpio began its relationship with Quaggin in 2011, when Quaggin and Akebia Therapeutics, Inc. (“Akebia”) (Aerpio’s predecessor-in-interest) signed a Unilateral Confidentiality Agreement (“UCA”) (attached as Exhibit<sup>1</sup> A hereto) to protect Akebia’s competitively valuable confidential information and materials—relating, but not limited, to Tie-2 agonists and HPTP $\beta$  inhibitors—from disclosure and misuse. The relationship progressed, and Quaggin signed in 2013 a Consulting Agreement (“CSA”) (attached as Exhibit B hereto) with Aerpio and joined Aerpio’s Pre-Clinical Scientific Advisory Board to provide services in the area of Aerpio’s therapeutics targeted at the inhibition of HPTP $\beta$ . Quaggin moved from Canada and joined University as an employee also in 2013, and Aerpio and University entered into a Material Transfer Agreement (“NW MTA”) (attached as Exhibit C hereto) under which Quaggin would continue experiments related to the inhibition of HPTP $\beta$  as an Investigator.

4. Under these agreements, Quaggin received samples of Aerpio’s small molecule HPTP $\beta$  inhibitors, AKB-9778 and AKB-9785, as well as access to Aerpio’s confidential

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<sup>1</sup> “Exhibit” refers to documents attached to the Complaint, filed herewith.

information and research and development. On information and belief, prior to Quaggin's relationship with Aerpio and receipt of its small molecule HPTP $\beta$  inhibitors, Quaggin had never researched, had access to, or studied small molecule inhibitors of HPTP $\beta$ /VE-PTP or their potential clinical use.

5. Under the CSA, Quaggin: (1) was required to disclose and assign to Aerpio as its exclusive property all inventions, innovations, and intellectual property developed during the time period of the engagement; (2) did, by execution of the CSA, assign to Aerpio as its exclusive property all inventions, innovations, and intellectual property developed during the time period of the engagement; (3) warranted that the CSA would not interfere or conflict with any other contractual obligation; (4) agreed to not use, publish, or disclose any confidential information without Aerpio's prior written consent; (5) was required to return all confidential and non-confidential information to Aerpio upon request or termination of the CSA; and (6) agreed to treat all information received, observed, or developed, or to which Quaggin had access in the course of performing the CSA, as confidential information. Quaggin disregarded and breached each of these obligations.

6. Under the NW MTA, Quaggin and University agreed to many of the same obligations, including to: (1) use Aerpio's materials solely for the project and no other purposes, such as for commercial purposes, not modify or reverse engineer the materials, and not distribute the materials to any third party without Aerpio's prior written consent; (2) keep information related to the materials and agreement confidential; (3) not use confidential information for any purpose other than the projects outlined in the agreement without Aerpio's prior written consent; (4) provide Aerpio with a written description of any intellectual property derived from, or related to, Aerpio's materials; (5) notify Aerpio of University's decision to seek or not seek patent

protection on any invention; (6) notify Aerpio that University elected to not file or maintain a patent application or patent arising from an invention, giving Aerpio the right to file or maintain the application or patent at its own expense with full control over the prosecution and maintenance thereof; (7) provide Aerpio a first option to negotiate an exclusive license to each invention created by University inventors; and (8) not transfer or distribute any Aerpio material or information concerning such material to any third party or any individual outside of Quaggin's laboratory without prior written consent from Aerpio. Although Quaggin and University were aware and remain aware of these obligations, Quaggin has breached these obligations, and, as University's agent, therefore caused University to breach these obligations as well.

7. Aerpio satisfied all of its obligations under both the CSA and NW MTA, yet Quaggin has done the opposite, and continues to breach both agreements.

8. For example, instead of remaining free of conflicts, Quaggin formed a competing company, Mannin Research Inc., and holds an executive position there as Chief Scientific Officer. On information and belief, Quaggin's executive position at Mannin requires Quaggin to assign any intellectual property to Mannin. This creates a direct conflict of interest with the CSA, where Quaggin agreed to assign certain intellectual property to Aerpio.

9. On information and belief, Quaggin attempted to take control of Aerpio's intellectual property to create Mannin to help herself and her family. On information and belief, at least three of Quaggin's family members work at Mannin. Christopher A. Smith, Chairman of Mannin's Board of Directors, and Geoffrey D. Smith, Secretary of Mannin's Board of Directors, are, on information and belief, relatives of Kevin Smith, who is married to Quaggin. Additionally, on information and belief, Quaggin and Kevin Smith's son, Patrick Quaggin-Smith, is currently employed by Mannin as a business analyst.

10. On information and belief, Mannin is now developing and researching competing small molecules and biologics based VE-PTP/HPTP $\beta$  inhibitors using the knowledge and information Quaggin learned from Aerpio. Quaggin guided Mannin towards becoming Aerpio's competitor and is using Aerpio's own research and knowledge to compete directly with Aerpio. Quaggin had no previous experience with small molecule VE-PTP/HPTP $\beta$  inhibitors for the treatment of any diseases, much less ocular diseases, including glaucoma, and learned of the same through her relationship with Aerpio. Quaggin nevertheless formed Mannin as a competing company that now, without acknowledging Aerpio, presents itself as leading the development of new vascular therapeutics and touts itself as the "only company" targeting the repair of the normal flow of fluid in the eye with a unique small molecule—presumably via VE-PTP inhibition.

11. Upon information and belief, Quaggin and Mannin have improperly benefited from using Aerpio's knowledge, converting it to Mannin intellectual property, to obtain funding from Q BioMed Inc., a company which acquires, develops, and finances biomedical assets. Upon information and belief, Q BioMed Inc. invested \$4,000,000 into the Mannin intellectual property that is based on Aerpio's technology, which it touts as a "first-in-class eye drop treatment for glaucoma," and for which it has received a worldwide, exclusive license and option to purchase at a price of \$30,000,000.

12. Instead of disclosing to Aerpio purported inventions related to the CSA and NW MTA, beginning in July 2014, Quaggin secretly filed patent applications and repeatedly and relentlessly attempted to claim the use of VE-PTP inhibitors to treat ocular diseases, such as glaucoma, and kidney disease. Quaggin's patent applications, all filed on behalf of Mannin,

include the following applications that included or may include claims relevant to VE-PTP inhibitors, and such claims are collectively referred to as “the Claims”:

- a. U.S. Provisional Patent Application No. 62/020,868 (attached as Exhibit D hereto),
- b. U.S. Non-Provisional Patent Application No. 15/631,806 (attached as Exhibit E hereto), and
- c. U.S. Non-Provisional Patent Application No. 16/143,017.

13. The patent applications above each disclose and potentially claim the use of VE-PTP inhibitors to treat ocular diseases, such as glaucoma, and/or kidney disease.

14. In the Claims, Quaggin attempted to claim inventorship over the use of VE-PTP inhibitors to treat glaucoma and cystic kidney disease. She even signed a declaration, under penalty of imprisonment or fine, that she was the original inventor of such Claims. While she has thus far been unsuccessful in her attempts to patent the Claims based on rejections and arguments presented by the U.S. Patent and Trademark Office, she has repeatedly relied on the disclosures in the patent applications to claim priority and rights to the technology disclosed, to the detriment of Aerpio’s rights.

15. Instead of abiding by the CSA and NW MTA and disclosing any purported intellectual property to Aerpio, Quaggin kept it secret while attempting improperly to obtain patent claims for herself and Mannin to technology she learned from Aerpio. Even though she has been unsuccessful to date, Quaggin’s attempts themselves are flagrant violations of her obligations under the CSA and NW MTA and have worked and will continue to work to the detriment of Aerpio’s rights.

16. Instead of assigning the applications containing Claims to Aerpio as required under the CSA, Quaggin assigned the applications containing Claims to Mannin, Aerpio's competitor.

17. Instead of obtaining Aerpio's prior written consent before disclosing its information in her patent applications, Quaggin filed for and published Aerpio's information as her own in her patent applications.

18. On information and belief, instead of disclosing any intellectual property to University, Quaggin kept it secret, and did not advise University of her actions, breaching the NW MTA in concert with Mannin. Quaggin's actions caused University to breach the NW MTA because University could not comply with its requirements under the contract if Quaggin never told University about her actions and purported intellectual property.

19. These are just a few of Quaggin's breaches of the agreements.

20. Aerpio has tried repeatedly to peacefully resolve these issues with Quaggin and Mannin, without implicating University. Quaggin and Mannin have failed to alleviate Aerpio's concerns. Aerpio must act now to protect its rights and intellectual property.

21. Aerpio seeks damages as a result of Quaggin's, Mannin's, and University's conduct. Aerpio seeks monetary damages for Quaggin's breaches of the CSA and NW MTA. Quaggin breached the implied duty of good faith and fair dealing through her conduct, in addition to breaching specific clauses of the agreements. Quaggin and Mannin have been unjustly enriched by Quaggin's breaches of the agreements. On information and belief, Quaggin and Mannin improperly benefited from Aerpio by using Aerpio's knowledge to obtain National Institute of Health ("NIH") research grants which were used to benefit Mannin, a foreign entity.

Further, Mannin and Quaggin, to the extent she was not acting as University's agent, intentionally and tortiously interfered with Aerpio's rights under the NW MTA.

22. In addition to the damages sought by Aerpio as a result of Quaggin's, Mannin's, and University's conduct, Aerpio seeks a determination of Aerpio's ownership of the applications containing Claims, a determination of Kevin Peters' inventorship of the Claims, and an injunction requiring Quaggin and Mannin to take all steps necessary to assign to Aerpio all patent applications containing Claims, and all future patent applications claiming priority thereto that contain Claims, and to correct any improper inventorship in those patent applications.

### **PARTIES**

23. Plaintiff Aerpio is a corporation organized and existing under the laws of the State of Delaware, and having a place of business in this District at 9987 Carver Road, Suite 420, Cincinnati, Ohio 45242.

24. Upon information and belief, Defendant Dr. Susan E. Quaggin is a person whose domicile is located at 1722 N. Hudson Avenue, Chicago, IL 60614-5611 and who is employed by University.

25. Upon information and belief, Defendant Mannin Research Inc. is a corporation organized and existing under the laws of Canada, and having a principal place of business at 629 Eastern Avenue, Suite C300, Toronto, Ontario M4M 1E4.

26. Upon information and belief, Defendant Northwestern University, Office for Sponsored Research, is a corporation organized and existing under the laws of the State of Illinois, and having a principal place of business at 750 N. Lake Shore Drive, Floor 7, Chicago, IL 60611.



### **JURISDICTION AND VENUE**

27. Subject matter jurisdiction exists pursuant to 28 U.S.C. § 1332. The amount in controversy exceeds the sum or value of \$75,000, exclusive of interests and costs, and is between citizens of different states.

28. This Court has personal jurisdiction over Quaggin, Mannin, and University pursuant to Ohio R.C. 2307.382 because this action arises out of business conducted by Quaggin and University in Ohio. Quaggin and University directed correspondence related to the NW MTA to Ohio, the business location of both Akebia and Aerpio. Quaggin signed the CSA, which shall be interpreted, construed, and enforced in accordance with and pursuant to the laws of the state of Ohio, and Quaggin directed correspondence related to the CSA to Ohio. Mannin signed a Bilateral Confidentiality and Non-Disclosure Agreement (“Mannin NDA”) (attached as Exhibit F hereto) with Aerpio, which is also to be construed and governed by the laws of the state of Ohio. The agreements entered into between Aerpio and Quaggin and University created ongoing contractual responsibilities, duties, and obligations to Aerpio in Ohio. Ohio is where Aerpio developed the technology in dispute, where it executed the contractual agreements creating ongoing responsibilities, duties, and obligations to it by Quaggin and University, from where it made material disclosures to Quaggin and University, and where it has suffered the harm foreseeably created by Defendants’ conduct. Quaggin, Mannin, and University are engaging in improper and tortious conduct foreseeably causing injury in this District. Upon information and belief, Quaggin and University have maintained and continue to maintain continuous and systematic contacts with Ohio including, but not limited to, Quaggin’s previous membership on Aerpio’s Scientific Advisory Board and sending CSA and NW MTA study results to Aerpio’s office in Ohio. Upon information and belief, Mannin has maintained and continues to maintain

continuous and systematic contacts with Ohio, including, but not limited to, corresponding with Aerpio via E-mail and telephone. Mannin has knowingly directed activities toward Ohio with the intent to cause harm there to Aerpio. On information and belief, Mannin knew of Quaggin's and University's ongoing and continuing contractual obligations to Aerpio in Ohio and interfered therewith, foreseeably causing harm in Ohio. Upon information and belief, University has maintained and continues to maintain continuous and systematic contacts with Ohio.

29. Venue is proper in this judicial District pursuant to 28 U.S.C. § 1391. Aerpio is currently, and it and its predecessor-in-interest have been, headquartered in this District since 2007, before the execution of the NW MTA, CSA, and Mannin NDA, and a substantial part of the events or omissions giving rise to the claims caused injury in this District. Aerpio negotiated the NW MTA, CSA, and Mannin NDA from within this District; communications related to the performance of the NW MTA and CSA were directed to this District; and communications regarding disputes over the NW MTA and CSA originated from within this District. Quaggin and Mannin are also engaging in improper and tortious conduct causing injury in this District.

### **FACTUAL ALLEGATIONS**

30. Aerpio began as Akebia Therapeutics, Inc. in 2007 in Cincinnati, Ohio, to develop novel small molecules to treat a variety of diseases, including, without limitation, diabetic retinopathy, wet age-related macular degeneration, and diabetic macular edema. In 2011, Akebia announced the initiation of its "Phase 1 study of AKB-9778, a first-in-class human protein tyrosine phosphatase beta (HPTPβ) inhibitor in development for . . . diabetic eye disease." In 2011, Aerpio Therapeutics, Inc. was formed as a sister company to Akebia and obtained ownership of intellectual property rights to phosphatase inhibitors in addition to other compounds. Aerpio Therapeutics, Inc. then converted to Aerpio Pharmaceuticals, Inc. in 2017.

31. Aerpio's current lead product candidate is AKB-9778, which is a small molecule Tie-2 activator and VE-PTP/HPTP $\beta$  inhibitor. AKB-9778 was developed and is being studied to treat diseases of the eye. Aerpio's research and development work on its small molecule HPTP $\beta$  inhibitors, including AKB-9778, has at all times been performed out of its principal place of business in Cincinnati, Ohio.

32. Aerpio holds exclusive rights to AKB-9778 and to a larger portfolio of small molecule inhibitors and biologics that target HPTP $\beta$ /VE-PTP.

33. AKB-9778 is currently in clinical trials for the treatment of non-proliferative diabetic retinopathy ("NPDR"), a complication of diabetes caused by damage to blood vessels in the retina. Based on findings from Aerpio's trials with AKB-9778, Aerpio has been developing an eye drop formulation of AKB-9778 to treat primary open angle glaucoma.

34. The Tie-2 receptor pathway is a key regulator of blood vessel integrity. Tie-2 is a receptor found on the surface of vascular cells. Its activity maintains blood vessel structure and inhibits inflammation. In healthy blood vessels, Tie-2 is maintained in an active state by binding the ligand, angiopoietin-1 ("Ang-1"). Activated Tie-2 is responsible for the maintenance of vascular stability. Tie-2 activity can be downregulated by deactivating Tie-2 with vascular endothelial protein tyrosine phosphatase ("VE-PTP") and binding the non-activating ligand angiopoietin-2 ("Ang-2"). VE-PTP thus acts as an "off switch" of the critical Tie-2 receptor. In diabetic eye disease, VE-PTP and Ang-2 are pathologically upregulated, which decreases Tie-2 activation. This loss of Tie-2 activity results in microaneurism formation and unregulated leakage of fluid and proteins into the surrounding tissue. This reduced efficiency of blood flow leads to ischemia. Aerpio's pre-clinical experiments demonstrated that blocking VE-PTP from

de-activating Tie-2 may be the most clinically superior way to manipulate activity of the Tie-2 receptor.

35. Dr. Kevin Peters, MD is Aerpio's Chief Scientific Officer and has guided the early preclinical and clinical development of AKB-9778 as a small molecule inhibitor of HPTP $\beta$  for clinical application. Dr. Peters was formerly the Group Medical Director, Cardiovascular and Metabolic Disease in Global and Discovery Medicine at Bristol Myers Squibb and head of Therapeutic Angiogenesis research at Procter & Gamble Pharmaceuticals ("P&GP").

36. Dr. Peters has published many research papers in the areas of receptor signaling and vascular biology and has been researching the Tie-2 pathway and regulation since at least 1993. Dr. Peters pioneered the field of protein tyrosine phosphatase inhibition as an approach to modulate vascular growth and function to treat human disease at Duke, P&GP, and Aerpio. He led P&GP's research into the role of protein tyrosine phosphatases in vascular signaling and development and cutting edge small molecule discovery programs targeting HPTP $\beta$ . Dr. Peters was involved in the design and synthesis of HPTP $\beta$  inhibitors, including AKB-9778, since at least 2006.

37. Aerpio, including through Dr. Peters, has studied and researched the use of HPTP $\beta$  inhibitors to treat ocular diseases since 2010. Before any relationship with Quaggin, Dr. Peters and Aerpio investigated the use and effect of HPTP $\beta$  inhibitors on glaucoma. Aerpio's early clinical trials also assessed intra-ocular pressure, which is associated with glaucoma. Prior to any relationship with Quaggin, Dr. Peters conceived of the treatment of patients with eye diseases, including glaucoma, with VE-PTP phosphatase inhibitors and agents capable of Tie-2 receptor activation, and specific pharmaceutical compositions, including for topical delivery to

the eye, containing such agents. Similarly, before and during Aerpio's relationship with Quaggin, Aerpio studied and researched the use of HPTP $\beta$  inhibitors on kidney function.

38. Aerpio began its relationship with Quaggin in 2011, when Quaggin and Akebia signed the UCA in recognition that Akebia possessed competitively valuable confidential information relating to Tie-2 agonists and HPTP $\beta$  inhibitors. The agreement sought to protect this valuable information from disclosure and use while Quaggin and Akebia considered a possible relationship, which would help further Aerpio's drug discovery efforts using these materials. Under the agreement, Akebia agreed to provide HPTP $\beta$  inhibitor materials to Quaggin in order to assess the effect of HPTP $\beta$  inhibition on the development of nephropathy using Quaggin's mouse model.

39. Under the agreement, Quaggin obligated herself to a contractual relationship with Aerpio, creating ongoing duties and obligations.

40. On July 7, 2012, unbeknownst to Aerpio, Quaggin formed Mannin Research Inc., a competitor to Aerpio. Mannin is a biotechnology company working on vascular therapeutics, such as a therapeutic eye drop to treat primary open angle glaucoma. Mannin's therapeutic programs work via Tie-2 activation, just as Aerpio's program works.

41. Quaggin has and currently serves as the Chief Scientific Officer at Mannin. On information and belief, at least three individuals related to Quaggin work at Mannin. Christopher A. Smith, Chairman of Mannin's Board of Directors, and Geoffrey D. Smith, Secretary of Mannin's Board of Directors, on information and belief, are relatives of Kevin Smith, who is married to Quaggin. Additionally, on information and belief, Quaggin and Kevin Smith's son, Patrick Quaggin-Smith, is currently employed by Mannin as a business analyst.

42. In March 2013, Quaggin and Aerpio executed the CSA, through which Quaggin joined Aerpio's Pre-Clinical Scientific Advisory Board to provide services in the area of therapeutics targeted at the inhibition of HPTP $\beta$ .

43. In her capacity on Aerpio's Pre-Clinical Scientific Advisory Board, Quaggin was privy to and received access to Aerpio's HPTP $\beta$ -inhibitor development progress and strategy, including clinical data and plans for Aerpio's studies into its HPTP $\beta$ -inhibitor programs. One program included a collaboration concerning kidney function. The mechanisms of action and clinical application for a variety of ocular indications were also shared with Quaggin.

44. Under the CSA, Quaggin: (1) was required to disclose and assign to Aerpio as its exclusive property all inventions, innovations, and intellectual property developed during the time period of the engagement; (2) did, by execution of the CSA, assign to Aerpio as its exclusive property all inventions, innovations, and intellectual property developed during the time period of the engagement; (3) warranted that the CSA would not interfere or conflict with any other contractual obligation; (4) agreed to not use, publish, or disclose any confidential information without Aerpio's prior written consent; (5) was required to return all confidential and non-confidential information to Aerpio upon request or termination of the CSA; and (6) agreed to treat all information received, observed, or developed, or to which Quaggin had access to in the course of performing the CSA, as confidential information.

45. Despite recently forming Mannin and undertaking an executive role at Mannin, Quaggin signed the CSA without disclosing her Mannin affiliation, breaching the conflicts of interest provision of the CSA.

46. On information and belief, Quaggin assigned intellectual property related to the CSA to Mannin, breaching the assignment obligations in the CSA.

47. In November 2013, the relationship between Aerpio and Quaggin grew to include University after Quaggin moved to Northwestern University as a professor and Aerpio agreed to have Quaggin continue studying its small molecule HPTP $\beta$  inhibitors as well as the effect of HPTP $\beta$  inhibitors on the function of the kidney in diabetic and wild type mice and the involvement of Tie-2 basal signaling activity in maintaining vascular barrier integrity.

48. Aerpio and University signed the NW MTA as parties on November 4, 2013, and Quaggin signed as the Investigator, acknowledging her obligations under the agreement.

49. Under the NW MTA, Quaggin received samples of Aerpio's proprietary AKB-9778 and AKB-9785 materials, as well as access to Aerpio's confidential information and proprietary research and development, including its proprietary eye drop formulations.

50. Under the NW MTA, Quaggin and University obligated themselves to an ongoing contractual relationship with Aerpio that created ongoing duties and obligations to Aerpio.

51. Under the NW MTA, Quaggin and University were obligated to: (1) use Aerpio's materials solely for the project and no other purposes, such as for commercial purposes, not modify or reverse engineer the materials, and not distribute the materials to any third party without Aerpio's prior written consent; (2) keep information related to the materials and agreement confidential; (3) not use confidential information for any purpose other than the project outlined in the agreement without Aerpio's prior written consent; (4) provide Aerpio with a written description of any intellectual property derived from, or related to, Aerpio's materials; (5) notify Aerpio of University's decision to seek or not seek patent protection on any invention; (6) notify Aerpio that University elected to not file or maintain a patent application or patent arising from an invention, giving Aerpio the right to file or maintain the application or patent at its own expense with full control over the prosecution and maintenance thereof; (7) provide

Aerpio a first option to negotiate an exclusive license to each invention created by University inventors; and (8) not transfer or distribute any Aerpio material or information concerning such material to any third party or any individual outside of Quaggin's laboratory without prior written consent from Aerpio. Quaggin, by acknowledging and signing the NW MTA, was obligated to fulfill the same requirements.

52. In addition, if Quaggin desired to publish the results of the projects under the NW MTA, she was required to submit all proposed publications to Aerpio at least fifteen business days before oral presentations and thirty business days before submission for publication.

53. Quaggin never disclosed her executive position or affiliation with Mannin to Aerpio.

54. Aerpio first learned about Mannin and the details of its company in November 2015. Shortly thereafter, the CEO of Mannin, George Nikopoulos, and the President and CEO of Aerpio, Joseph Gardner, met at a conference in Las Vegas, Nevada and later signed the Mannin NDA on December 16, 2015 to keep any information disclosed during their meeting confidential. Despite signing the Mannin NDA, Mannin refused to disclose its patent application to Aerpio.

55. Aerpio hoped there was a possibility of collaboration with Mannin and reached out to Mannin several times towards that end. However, due to Quaggin's and Mannin's actions, Aerpio soon learned that Quaggin and Mannin were Aerpio's competitors, not potential collaborators.

56. Quaggin secretly filed patent applications for Mannin attempting to claim the use of VE-PTP inhibitors to treat ocular diseases, such as glaucoma, and kidney disease. On July 3, 2014, Quaggin filed U.S. Provisional Patent Application No. 62/020,868, entitled "Tie2 Receptor



Activation for Glaucoma,” which disclosed the use of VE-PTP inhibitors to treat glaucoma and cystic kidney disease and presented claims to the use of VE-PTP inhibitors for the treatment of open angle glaucoma, congenital glaucoma, or cystic kidney disease. Quaggin assigned the application to Mannin, Aerpio’s competitor, instead of to Aerpio as required by the CSA. This application has served as the priority document for additional patent applications filed by Mannin.

57. On July 2, 2015, Quaggin filed U.S. Non-Provisional Patent Application No. 14/790,884 (the “’884 application”) (attached as Exhibit G hereto), which disclosed the same information and attempted to claim the use of VE-PTP inhibitors for treating open angle glaucoma, congenital glaucoma, or cystic kidney disease. Quaggin signed a concurrent declaration, under penalty of imprisonment or fine, that she was the original inventor of the presented claims, including those claiming the use of VE-PTP inhibitors for treating open angle glaucoma, congenital glaucoma, or cystic kidney disease. The application published on January 7, 2016. This application was also assigned to Mannin, Aerpio’s competitor.

58. Following on these applications, Quaggin was granted U.S. Patent No. 9,719,135 (the “’135 patent”) (attached as Exhibit H hereto) on August 1, 2017, which also disclosed the use of VE-PTP inhibitors to treat glaucoma and cystic kidney disease. Quaggin did not successfully obtain claims encompassing the use of VE-PTP inhibitors, and the claims of the ’135 patent ultimately issued claiming only the mice models created by Quaggin.

59. Although Quaggin did not successfully obtain claims encompassing the use of VE-PTP inhibitors in the ’135 patent, she did not stop trying. On June 23, 2017, Quaggin filed U.S. Non-Provisional Patent Application No. 15/631,806 (the “’806 application”), a continuation of the ’884 application, which later issued as the ’135 patent. The ’806 application again

attempts to claim the use of VE-PTP inhibitors. The '806 application is abandoned according to the Notice of Abandonment mailed by the United States Patent and Trademark Office on October 11, 2018 for failure to respond to the Non-Final Rejection of March 26, 2018 within the six month window as required under 35 U.S.C. § 133. Prior to abandonment, on September 26, 2018, Quaggin filed U.S. Non-Provisional Patent Application No. 16/143,017 (the "'017 application"), a continuation of the '806 application. Prosecution of the '017 application is not currently publicly accessible.

60. But for Aerpio's disclosure of its confidential information relating to VE-PTP inhibitors, Quaggin would not have known of this mechanism of action and would not have attempted to claim this use of VE-PTP inhibitors.

61. On information and belief, Mannin, through Quaggin, knew of Quaggin's and University's contractual obligations with Aerpio and Quaggin's and University's ongoing relationship and continuing obligations to Aerpio.

62. On information and belief, Mannin, through Quaggin, was aware that interference with Quaggin's and University's obligations under the CSA and NW MTA would cause damage to Aerpio and its rights under the CSA and NW MTA.

63. Nevertheless, on information and belief, Mannin caused to be disclosed and filed patent applications disclosing and claiming the use of technology proprietary to Aerpio and/or developed under the terms of the CSA and/or NW MTA.

64. Aerpio has repeatedly attempted to resolve any conflict involving Quaggin, Mannin, and University peacefully and without Court intervention. Since October 2017, Aerpio has sent Quaggin numerous letters informing her of her remaining obligations under the NW MTA and CSA, as well as her breaches of those agreements. Despite these attempts to

peacefully resolve Aerpio's concerns, Quaggin has failed to alleviate Aerpio's concerns and continues to act in ways that breach her obligations under the CSA and NW MTA. Quaggin's and Mannin's actions have left Aerpio with no choice but to file this Complaint.

**COUNT I: BREACH OF CONTRACT**  
**(Breach of Contract of the Consulting Agreement)**  
**(Against Quaggin)**

65. Aerpio repeats and realleges each of the foregoing paragraphs as if fully set forth herein.

66. Aerpio and Quaggin, as signatories, entered into the CSA on March 1, 2013.

67. The CSA is a valid and legally binding contract.

68. Under the CSA, Quaggin, *inter alia*:

- a. Was required to disclose and assign to Aerpio as its exclusive property all inventions, innovations, and intellectual property rights of any kind and nature relating thereto, developed, conceived, or reduced to practice by Quaggin during her time period of engagement under the CSA;
- b. Did, by execution of the CSA, assign to Aerpio as its exclusive property all inventions, innovations, and intellectual property developed during the time period of the engagement;
- c. Warranted that the CSA will not interfere or conflict with any other contractual obligation;
- d. Agreed to not use, publish, or disclose any confidential information without Aerpio's prior written consent;
- e. Was required to return all confidential and non-confidential information to Aerpio upon request or termination of the CSA; and

- f. Agreed to treat all information received, observed, or developed, or to which Quaggin had access in the course of performing the CSA as confidential information.

69. Aerpio performed all of its responsibilities under the CSA. Aerpio provided Quaggin with information concerning AKB-9778 and AKB-9785 and the area of therapeutics targeted at the inhibition of HPTP $\beta$  and paid Quaggin \$8,000 a year for her services.

70. Quaggin breached the CSA by engaging in the conduct described in this Complaint, including, but not limited to, *inter alia*: failing to disclose patent applications relating to research performed during the term of the CSA; failing to disclose and assign to Aerpio as its exclusive property all inventions, innovations, and intellectual property relating to, developed, conceived, or reduced to practice by Quaggin during the time of engagement under the CSA; assigning to Mannin, without authority, patent applications relating to intellectual property relating to and developed under the CSA; failing to abide by her warranty that the CSA will not interfere or conflict with any other contractual obligation; and failing to obtain Aerpio's prior written consent before disclosing confidential information publicly and to Mannin.

71. Further, the CSA includes an implied covenant of good faith and fair dealing. The covenant of good faith and fair dealing requires that parties to a contract are bound toward one another by standards of good faith and fair dealing in the performance of their duties and that no party engage in any conduct to deprive any other party of the enjoyment of its rights and benefits under the contract.

72. Quaggin breached the covenant of good faith and fair dealing by engaging in the conduct described in this Complaint, including, but not limited to: failing to disclose publications and patent applications relating to research performed during the term of the CSA; failing to

disclose and assign to Aerpio as its exclusive property all inventions, innovations, and intellectual property relating to, developed, conceived, or reduced to practice by Quaggin during the time of engagement under the CSA; assigning to Mannin, without authority, patent applications relating to intellectual property relating to and developed under the CSA; failing to abide by her warranty that the CSA will not interfere or conflict with any other contractual obligation; and failing to obtain Aerpio's prior written consent before disclosing confidential information publicly and to Mannin.

73. Upon information and belief, Quaggin's conduct was further intended to enrich Quaggin to the detriment of Aerpio. By failing to disclose or assign certain patent applications to Aerpio, Quaggin prevented Aerpio from obtaining further patent protection on its intellectual property and from taking control of its prosecution, while obtaining or attempting to obtain such protection for her own benefit.

74. As a result of Quaggin's breach of the CSA, Aerpio has suffered damages.

**COUNT II**  
**(Breach of Contract of the Material Transfer Agreement)**  
**(Against Quaggin and University)**

75. Aerpio repeats and realleges each of the foregoing paragraphs as if fully set forth herein.

76. Aerpio and University, as signatories, entered into the NW MTA on November 4, 2013.

77. The NW MTA is a valid and legally binding contract.

78. Quaggin signed and acknowledged her obligations under the NW MTA as the Investigator. At all relevant times, Quaggin was an employee of the University and acting as the

agent on behalf of University for purposes of complying with and carrying out University's obligations under the NW MTA.

79. The NW MTA required Quaggin, as University's agent, and University to, *inter alia*:

- a. Submit all proposed publications to Aerpio at least fifteen business days before oral presentations and thirty business days before submission for publication;
- b. Acknowledge and agree that all inventions created solely by Aerpio will be the property of and solely owned by Aerpio;
- c. Provide Aerpio with a written description of any Northwestern ("NW") invention, created solely by NW;
- d. Cooperate with Aerpio in evaluating and deciding whether or not to seek patent protection for any joint inventions;
- e. Notify Aerpio of University's decision to seek or not seek patent protection for any NW invention;
- f. Notify Aerpio if University elected to not file or maintain a patent application or patent arising from any NW invention, giving Aerpio the right to file or maintain the application or patent at its own expense with full control over the prosecution and maintenance thereof;
- g. Provide Aerpio a first option to negotiate an exclusive license to any NW invention created by University inventors;
- h. Refrain from using the AKB-9778 and AKB-9785 material directly or indirectly for commercial purposes, any purpose besides as defined in the protocols, and from reverse engineering the material; and

- i. Not disclose confidential information without Aerpio's prior written consent.

80. Aerpio performed all of its responsibilities under the NW MTA. Aerpio provided Quaggin and University with samples of its small molecule AKB-9778 and AKB-9785 inhibitors for purposes of enabling Quaggin and University to study the effect of VE-PTP inhibitors in the function of the kidney in the diabetic and wild type mice; the involvement of Tie-2 basal signaling activity in maintaining vascular barrier integrity (Tie-2 conditional knockout); and AKB-9785 eye drops in A1/A2 cKO mice.

81. Quaggin, for herself or as University's agent, breached the NW MTA by, *inter alia*: publishing Aerpio's proprietary and confidential information without Aerpio's written consent; seeking patent protection for Aerpio's invention(s); failing to disclose to Aerpio Quaggin's pursuit of patent protection for subject matter resulting from Quaggin's research under the NW MTA; failing to provide Aerpio with the first option to exclusively license any technology in which Aerpio has such rights; and transferring to Mannin, without consent, Aerpio's material and information concerning the material and Aerpio's rights in its intellectual property.

82. Upon information and belief, Quaggin failed to disclose intellectual property developed under the NW MTA to University, which caused University to also breach the NW MTA. In the alternative that University had knowledge of Quaggin's intellectual property related to the NW MTA, University also breached the NW MTA for these reasons.

83. Additionally, the NW MTA includes an implied covenant of good faith and fair dealing. The covenant of good faith and fair dealing requires that parties to a contract are bound toward one another by standards of good faith and fair dealing in the performance of their duties

and that no party engage in any conduct to deprive any other party of the enjoyment of its rights and benefits under the contract.

84. Quaggin, for herself or as University's agent, breached the covenant of good faith and fair dealing by engaging in the conduct described in this Complaint, including but not limited to: seeking patent protection for Aerpio's invention(s); failing to notify Aerpio of Quaggin's pursuit of patent protection of inventions regarding Aerpio's compounds, without first providing that opportunity to Aerpio after University did not attempt to seek protection; failing to provide publications to Aerpio for review before publication; failing to provide Aerpio with a written description of each invention; and transferring to Mannin, without consent, Aerpio's material and information and Aerpio's rights in its intellectual property.

85. In the alternative that University was aware of Quaggin's intellectual property related to the NW MTA, University breached the covenant of good faith and fair dealing for the same reasons.

86. Upon information and belief, this conduct was intended to deprive Aerpio of the benefits of the NW MTA.

87. Quaggin and/or University assigned and filed for patent protection of Aerpio's intellectual property, breaching the agreement and depriving Aerpio of its rights under the agreement.

88. To the extent Quaggin and/or University assigned, filed for, and/or received patent protection of any joint intellectual property, it did so after failing to cooperate with Aerpio, breaching the agreement, and depriving Aerpio of its rights under the agreement and in the intellectual property.



89. In the alternative, to the extent Quaggin and/or University assigned, filed for, and/or obtained any patent protection of any NW invention created solely by NW, University was obligated to provide Aerpio with University's decision to seek or not to seek patent protection for any invention within a reasonable time. If University had decided to not seek patent protection, University was required to promptly notify Aerpio and then provide Aerpio with the right to file or maintain the application or patent at its own expense so that Aerpio would have full control over the prosecution and maintenance thereof. By failing to notify Aerpio of University's decision or provide Aerpio the opportunity to file or maintain the application or patent, University deprived Aerpio of the benefit of being able to exercise its patent protection rights. To the extent University was not aware of Quaggin's purported inventions that she later sought and is seeking patent protection for, Quaggin, as University's agent, intended to deprive Aerpio of its patent prosecution rights. University additionally was required to grant Aerpio a first option to negotiate an exclusive license to each NW invention. University failed to provide this first option, depriving Aerpio of its rights to license any University invention.

90. Upon information and belief, this conduct was intended to unjustly enrich Quaggin to the detriment of Aerpio. In the alternative that University was aware of Quaggin's intellectual property related to the NW MTA, upon information and belief, this conduct was intended to unjustly enrich Quaggin and University to the detriment of Aerpio.

91. As a result of Quaggin's, and in the alternative, University's and Quaggin's, breach of the NW MTA, Aerpio has suffered and will continue to suffer damages including loss of control over its confidential information and prosecution and ownership over its intellectual property rights.

**COUNT III**  
**(Tortious Interference with Contractual Relations)**  
**(Against Quaggin and Mannin)**  
**(In the Alternative)**

92. Aerpio repeats and realleges each of the foregoing paragraphs as if fully set forth herein.

93. Aerpio asserts this claim only in the alternative that: (a) Quaggin was to some degree not an agent on behalf of University when engaged in the acts identified in the Complaint; (b) Quaggin to some degree was not acting within the scope of her agency when engaged in the acts identified in the Complaint; or (c) Quaggin acted in bad faith when engaged in the acts identified in the Complaint.

94. Aerpio and University are signatories and parties to the NW MTA.

95. Quaggin signed and acknowledged her obligations under the NW MTA as the Investigator.

96. The NW MTA is a valid and legally binding contract.

97. On information and belief, Quaggin deliberately failed to disclose her pending patent applications covering subject matter related to the work commissioned by Aerpio in connection with the NW MTA to either Aerpio or University before publication or filing.

98. Quaggin further disclosed Aerpio's confidential information without Aerpio's prior written consent in the pending patent applications. Further, on information and belief, Quaggin failed to disclose to University intellectual property made, discovered, conceived, reduced to practice, or developed by her in connection with, derived from, or related to Aerpio's material.

99. On information and belief, Quaggin was aware of the NW MTA at all relevant times and her obligations to obtain Aerpio's prior written consent before disclosing confidential

information as well as to submit all proposed publications to Aerpio thirty business days before submission for publication.

100. On information and belief, Quaggin was aware of the NW MTA at all relevant times and her obligations to disclose to University all intellectual property related to Aerpio's material.

101. Quaggin signed the NW MTA as "Investigator" acknowledging that she read and understood the terms and conditions of the NW MTA.

102. Despite this acknowledgement, Quaggin failed to obtain Aerpio's prior written consent before publishing Aerpio's confidential information or results of the projects performed under the NW MTA.

103. Despite this acknowledgement, Quaggin failed to disclose and assign any intellectual property inventions or discoveries or developments to University, denying University the option to seek or not seek patent protection.

104. This in turn denied Aerpio either: (1) the right to seek patent protection of the alleged inventions if University decided to not seek patent protection itself, or (2) the first option to obtain an exclusive license to subject matter in which Aerpio has such rights.

105. On information and belief, Quaggin intentionally did not disclose or assign any such intellectual property relating to Aerpio's material to University, which caused University to breach the NW MTA by not disclosing Quaggin's intellectual property to Aerpio. Quaggin's actions constitute tortious interference with University's existing contractual relations.

106. On information and belief, Quaggin lacked justification to induce University's breach of the NW MTA.

107. Quaggin has directly harmed Aerpio by preventing Aerpio from controlling the patent prosecution of the Claims or by preventing Aerpio from exercising the first option to negotiate an exclusive license to any subject matter in which Aerpio has such rights.

108. Quaggin has also directly harmed Aerpio to the extent that Quaggin assigned and filed for patent protection of Aerpio's intellectual property.

109. Quaggin has also directly harmed Aerpio to the extent that Quaggin assigned and filed for patent protection of any joint intellectual property.

110. Aerpio is currently suffering and will continue to suffer actual economic damages as a result of Quaggin's and Mannin's tortious conduct.

**COUNT IV**  
**(Conversion)**  
**(Against Quaggin and Mannin)**

111. Aerpio repeats and realleges each of the foregoing paragraphs as if fully set forth herein.

112. Aerpio and Quaggin, as signatories, entered into the CSA on March 1, 2013.

113. The CSA is a valid and legally binding contract.

114. The CSA required Quaggin to assign to Aerpio, and Quaggin did assign to Aerpio, as Aerpio's exclusive property all inventions, innovations, and intellectual property rights of any kind and nature relating thereto, developed, conceived, or reduced to practice by Quaggin during her time period of engagement under the CSA.

115. Quaggin intentionally and wrongfully assigned certain patent applications concerning inventions, innovations, and intellectual property rights developed under the CSA to Mannin, instead of to Aerpio as required by the CSA.

116. Quaggin's failure to properly assign such patent applications to Aerpio deprived Aerpio of its right to control their prosecution.

117. Through Quaggin's and Mannin's actions, Mannin intentionally and wrongfully exercises dominion and control over the Claims.

118. Quaggin's breach of the CSA and failure to assign patent applications containing the Claims to Aerpio has damaged Aerpio by depriving it of its ownership and control over its confidential information and intellectual property, including the right to prosecute and make decisions regarding the same.

**COUNT V**  
**(Unjust Enrichment)**  
**(Against Quaggin and Mannin)**

119. Aerpio repeats and realleges each of the foregoing paragraphs as if fully set forth herein.

120. Quaggin and Mannin, through Quaggin's assignments to Mannin of patent applications containing Claims, have disclosed and are attempting to claim the use of VE-PTP inhibitors.

121. Since November 27, 2011, and under a confidential relationship, Aerpio provided to Quaggin, and by extension, Mannin, valuable information, know-how, disclosures, and materials regarding VE-PTP inhibitors and their use.

122. Quaggin and Mannin would not have learned about the small molecule VE-PTP inhibitors and the clinical use of VE-PTP inhibitors without Aerpio's knowledge and disclosures. Quaggin and Mannin did not have access to VE-PTP inhibitors prior to Aerpio's disclosures and providing of materials.

123. Quaggin and Mannin have been unjustly enriched at Aerpio's expense because Aerpio has not been compensated for the disclosure and providing of materials and has been deprived of its own rights therein.

124. Quaggin and Mannin enjoyed, have been enriched, and have benefited from Aerpio's knowledge, disclosures, and materials by, *inter alia*, the possible future issuance of patents, Claims, and disclosures of the same.

125. Among other benefits, this helped Mannin obtain funding from Q BioMed Inc. Upon information and belief, Q BioMed Inc. has an option to purchase Mannin's intellectual property at a purchase price of \$30,000,000 related to an eye drop treatment for glaucoma and treatments for cystic kidney disease for which it has already invested \$4,000,000 in exchange for licensing rights.

126. Quaggin has additionally benefitted from Mannin's relationship with Q BioMed Inc. because Quaggin's family members are affiliated with or work for Mannin. Upon information and belief, Christopher A. Smith, Chairman of Mannin's Board of Directors, and Geoffrey D. Smith, Secretary of Mannin's Board of Directors, are relatives of Kevin Smith, who is married to Quaggin. Further, upon information and belief, Quaggin and Kevin Smith's son, Patrick Quaggin-Smith, is currently employed by Mannin as a business analyst.

127. Quaggin and Mannin knew of the benefits of Aerpio's valuable information, know-how, disclosures, and materials regarding VE-PTP inhibitors and their use.

128. University and Quaggin have benefitted at Aerpio's expense because Aerpio was not offered an opportunity to take charge of the patent prosecution of the Claims; Aerpio was not given the first option to negotiate an exclusive license to this intellectual property; and Aerpio may be precluded from pursuing patent protection on the subject matter disclosed in Quaggin's

patent applications in which Aerpio has rights. Aerpio was not given ownership and control over rights that rightfully belong to it.

**COUNT VI**  
**(Quantum Meruit)**  
**(Against Quaggin and Mannin)**  
**(In the Alternative)**

129. Aerpio repeats and realleges each of the foregoing paragraphs as if fully set forth herein.

130. Aerpio satisfied its obligations to University and Quaggin under every agreement, including the CSA and NW MTA.

131. University and Quaggin have breached the CSA and NW MTA by, *inter alia*, failing to obtain Aerpio's prior written consent before disclosing its confidential information and failing to assign applications containing Claims to Aerpio.

132. Instead, Quaggin assigned the applications containing Claims to Mannin, for her and her family's benefit.

133. Aerpio received no benefit or compensation by Quaggin's actions of assigning the applications containing Claims to Mannin.

134. In the alternative to its claims for breach of contract, tortious interference, and unjust enrichment, Aerpio seeks recovery in quantum meruit for the damage Quaggin's assignment of the applications containing Claims to Mannin caused Aerpio.

**COUNT VII**  
**(Declaratory Judgment of Aerpio's Ownership of the**  
**Patent Applications Containing Claims)**  
**(Against Quaggin and Mannin)**

135. Aerpio repeats and realleges each of the foregoing paragraphs as if fully set forth herein.

136. Aerpio and Quaggin, as signatories, entered into the CSA on March 1, 2013. The CSA is a valid and legally binding contract.

137. Under the CSA, Quaggin assigned to Aerpio as its exclusive property all inventions, innovations, and intellectual property rights of any kind and nature relating thereto, developed, conceived or reduced to practice by Quaggin during her time period of engagement under the CSA.

138. Aerpio and University, as signatories, entered into the NW MTA on November 4, 2013. Quaggin acknowledged her obligations under the NW MTA by signing it as the Investigator. The NW MTA is a valid and legally binding contract.

139. Under the NW MTA, any and all inventions created solely by Aerpio are the property of and solely owned by Aerpio and any and all inventions created jointly by Aerpio and University are the property of and jointly owned by Aerpio and University. Quaggin was not permitted to file patent applications on subject matter invented by Aerpio inventors either solely or jointly with University inventors, as she did.

140. The Claims relating to the use of VE-PTP inhibitors to treat diseases claimed in the applications were developed under the CSA and/or as Aerpio inventions, or alternatively joint inventions, under the NW MTA.

141. As a result of the CSA and NW MTA, Aerpio is the rightful exclusive owner of the applications containing Claims.

142. In the alternative, as a result of the NW MTA, Aerpio is at least a joint owner of the applications containing Claims.

143. Quaggin and Mannin deny that Aerpio is a rightful owner of the applications containing Claims.



144. Aerpio has a legally protected interest in the applications containing Claims.

145. The applications containing Claims were wrongfully and/or invalidly assigned from Quaggin to Mannin. Those assignments are null and void.

146. There exists an actual, immediate, real, and substantial controversy between the parties having adverse legal interests regarding whether the CSA and/or NW MTA validly assigned to Aerpio all rights, title, and interest to the Claims and claims on similar subject matter in any divisional, renewal, substitute, continuation, continuation-in-part, reissue, and re-examination applications filed from Quaggin's patent applications.

147. For the reasons set forth above, Aerpio is entitled to a declaratory judgment that:

- a. Defendants have no ownership, authority, control, rights, title, and/or interest in the applications containing Claims and may exercise no rights in, or utilize in any way, such applications;
- b. The CSA and/or NW MTA granted to Aerpio all rights, title, and interest to the applications containing Claims;
- c. Aerpio is the sole owner of the applications containing Claims;
- d. Aerpio is entitled to all royalties, proceeds, and benefits wrongfully earned, realized, and/or obtained by Defendants in any way arising from the applications containing Claims and any intellectual property claiming similar subject matter; and
- e. Quaggin and Mannin are not entitled to any payments or transfers of rights from Aerpio with respect to the applications containing Claims and any intellectual property claiming similar subject matter.

148. In the alternative, for the reasons set forth above, Aerpio is entitled to a declaratory judgment that:

- a. The NW MTA granted to Aerpio joint rights, title, and interest to the applications containing Claims;
- b. Aerpio is a co-owner of the applications containing Claims; and
- c. Aerpio is entitled to a share of all royalties, proceeds, and benefits wrongfully earned, realized, and/or obtained by Defendants in any way arising from the applications containing Claims and any intellectual property claiming similar subject matter.

**COUNT VIII**  
**(Declaratory Judgment of Aerpio's Inventorship of the**  
**Patent Applications Containing Claims)**  
**(Against Quaggin and Mannin)**

149. Aerpio repeats and realleges each of the foregoing paragraphs as if fully set forth herein.

150. Dr. Kevin Peters, employed by Aerpio, is the inventor of the subject matter concerning the use of VE-PTP inhibitors to treat diseases claimed in the applications containing Claims.

151. As a result, Kevin Peters is the sole inventor of at least any claim of the applications concerning VE-PTP inhibitors, i.e., the Claims.

152. Quaggin and Mannin deny that Kevin Peters is an inventor of the Claims.

153. Quaggin is the only named inventor of record with the United States Patent and Trademark Office for the applications containing Claims. Quaggin did not, however, invent the Claims. In particular, prior to her relationship with Aerpio, Quaggin was not aware of and did not have possession of the use of small molecule VE-PTP inhibitors for the treatment of any

condition, including eye conditions and kidney disease. Quaggin did not conceive of any Claim involving such VE-PTP inhibitors, their use, activity, or synthesis. Instead, Quaggin learned of the identity, features, mechanisms of action, activity, and clinical use of small molecule VE-PTP inhibitors by virtue of her relationship with Aerpio under the CSA and NW MTA.

154. Aerpio has a legally protected interest in the applications containing Claims.

155. There exists an actual, immediate, real, and substantial controversy between the parties having adverse legal interests regarding whether Kevin Peters is an inventor of the Claims and claims on similar subject matter in any divisional, renewal, substitute, continuation, continuation-in-part, reissue, and re-examination applications filed from Quaggin's patent applications.

156. For the reasons set forth above, Aerpio is entitled to a declaratory judgment that:

- a. Kevin Peters is a joint or sole inventor of the Claims and claims on similar subject matter in any divisional, renewal, substitute, continuation, continuation-in-part, reissue, and re-examination applications filed from Quaggin's patent applications;
- b. Quaggin is not the sole inventor of the Claims or claims on similar subject matter in any divisional, renewal, substitute, continuation, continuation-in-part, reissue, and re-examination applications filed from Quaggin's patent applications; and
- c. Quaggin is not the inventor of any claims concerning the use of VE-PTP inhibitors, including those to treat ocular diseases and/or kidney disease.

157. Aerpio seeks, and is entitled to, an Order requiring Quaggin and Mannin and the Director of the United States Patent and Trademark Office to take all steps necessary to correct the inventorship on the applications containing Claims.

**COUNT IX**  
**(Specific Performance/Injunctive Relief)**  
**(Against Quaggin and Mannin)**

158. Aerpio repeats and realleges each of the foregoing paragraphs as if fully set forth herein.

159. Quaggin and Mannin have refused and neglected to take the necessary steps in the United States Patent and Trademark Office to correct the named inventor on the applications containing Claims to include Aerpio personnel as the true and actual inventor(s).

160. Quaggin and Mannin have refused and neglected to take the necessary steps in the United States Patent and Trademark Office to assign the applications containing Claims to Aerpio as the proper owner under the terms of the CSA and NW MTA.

161. Aerpio will be irreparably harmed if it does not seek and obtain the injunctive relief and specific performance requested.

162. Aerpio has demonstrated a likelihood of success on the merits and it knows of no legal or equitable defense to its claims.

163. Aerpio believes and therefore avers that the balance of harms requires that an injunction or specific performance issue against Quaggin and Mannin.

**PRAYER FOR RELIEF**

WHEREFORE, Plaintiff requests the following relief:

- A. A judgment that Quaggin has breached the CSA;
- B. A judgment that Quaggin has breached the NW MTA;
- C. A judgment that University has breached the NW MTA;
- D. A judgment that Quaggin and Mannin have intentionally and tortiously interfered with Aerpio's contractual relationship with University under the NW MTA;

- E. A judgment that Quaggin and Mannin have been unjustly enriched;
- F. A judgment declaring that: (a) Aerpio possesses the exclusive rights, title, and interest to the applications containing Claims; and (b) Quaggin and Mannin do not possess the exclusive rights, title, and interest to the applications containing Claims; or in the alternative, a declaratory judgment that Aerpio is a co-owner and possesses joint rights, title, and interest to the applications containing Claims;
- G. A judgment declaring that: (a) Kevin Peters is a joint or sole inventor of the Claims; and (b) that Quaggin is not the sole inventor of the Claims;
- H. A permanent mandatory injunction for specific performance requiring Quaggin and Mannin to take all steps necessary to assign to Aerpio the applications containing Claims, and any claims on similar subject matter in all patent applications claiming priority to Quaggin's patent applications, and to correct the inventorship thereof;
- I. Damages from Defendants' conduct as may be proved to the Court;
- J. Costs and expenses in this action; and
- K. Such further and other relief as this Court may deem just and proper.

**JURY DEMAND**

Plaintiff demands a trial by jury on all claims so triable.

Dated: November 15, 2018

Respectfully submitted,

/s/ Jesse Jenike-Godshalk

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